

INCOME DISTRIBUTION DATA REVIEW – CZECH REPUBLIC

1. Available data sources used for reporting on income inequality and poverty

1.1. OECD reporting:

OECD income distribution and poverty indicators for Czech Republic are computed on the basis of two data sets and provided by the Czech National Statistics Office until 2008:

- Indicators for 1992, 1994 and 2002 are based on Micro Census.
- Indicators since 2004 are based on EU-SILC.

According to the Czech data provider, the change in series did not impede on the comparability. Indeed, looking at trends over time, there appears to be no major break in trends.

1.2. National reporting and reporting in other international agencies:

Eurostat's data series based on annual surveys since 2000.

LIS database, using annual surveys using Micro Census data for years 1992 and EU-SILC for 2004.

The below table presents the main characteristics of those three datasets:

Table 5. Characteristics of datasets used for income reporting, Czech Republic

	OECD reference series income distribution database	Eurostat	LIS database
Name	EU-SILC	EU-SILC	Micro Census (1992+1996) EU-SILC (2004)
Name of the responsible agency	Eurostat	Eurostat	Czech National Statistical Office
Year (survey and income/wage)	2004-2009	2001 (based on underlying survey) and EU-SILC 2005-2010 representing income for 2000 and 2004-2009.	1993, 1997, 2005 surveys representing 1992, 1996, 2004 income years
Period over which income is assessed	EU-SILC 2005-2009 representing income for 2004-2009	Annual income for the all year N-1	Annual income for the all year N-1
Covered population	Household	Household	
Sample size	7000 dwellings (2009)	Actual sample size of 11274 households. Achieved sample size of 9098 (2010 survey).	6646 dwellings (2005 survey)
Sample procedure	cross-section, revolving panel (annually 25% are substituted)	Stratified multi-stage sampling	Two-stage design with first stage unit stratification.
Response rate	64.8% (2009)	80.70%	64.80%
Imputation of missing values	No missing values, negative values treated as suggested in the terms of references	the missing income was imputed using correct statistical methods.	Missing values because of item non-response as well as partial unit non-response are fully imputed.
Unit for data collection	Data are adjusted for annual hours worked to represent full-year equivalent earnings. Earnings are net of employee social security contributions but not of income tax	The primary sample units (PSUs) are the census enumeration district (CEUs). The secondary sample units (SSUs) are the dwelling.	Household level (for rental income, family/children allowances, social assistance, housing allowances, income of persons under 16, transfers between households and income from consumption of own production), and individual level (for all other incomes).
Break in series	Yes	No	Yes
Web source:	http://stats.oecd.org/Index.aspx?QueryId=26068	http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/quality/national_quality_reports	http://www.lisdatacenter.org/our-data/lis-database/by-country/czech-republic-2/

Comparison of main results derived from sources used for OECD indicators with alternative sources

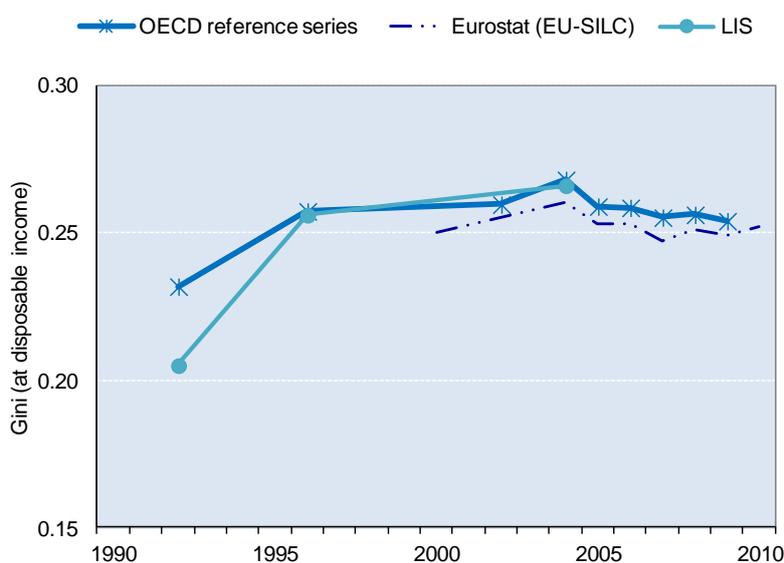
2.1 Income

2.1.1 Time series of Gini coefficients and other inequality indicators

According to the OECD income distribution database, income inequality in the Czech Republic ranks as one of the lowest in the OECD area at 0.254 in 2009 versus 0.314 for the OECD average.

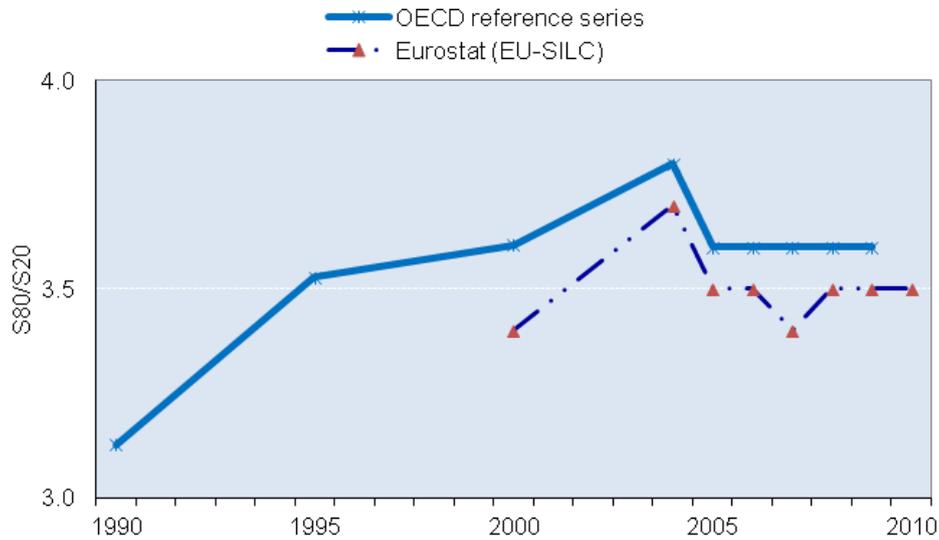
The other series of Gini coefficients on disposable income in Czech Republic are the LIS series and the EU-SILC series. The LIS series shows similarly low levels of income inequality as the OECD series throughout the period 1992 to 2004 (in 2004 with 0.266 for the LIS series and 0.268 for the OECD series). The EU-SILC series is consistent with the OECD series although somewhat lower levels of income inequality than the OECD series throughout.

Figure 12.1 Trends in Gini coefficient (disposable income)



Also, when comparing the income quintile share ratio (S80/S20) from the OECD reference series and the EU-SILC series, the OECD series shows slightly higher levels of income quintile share ratio throughout, although both series show similar trends, with steady levels in the last couple years (3.6 for the OECD series and 3.5 for the EU-SILC series).

Figure 1.2 S80/S20

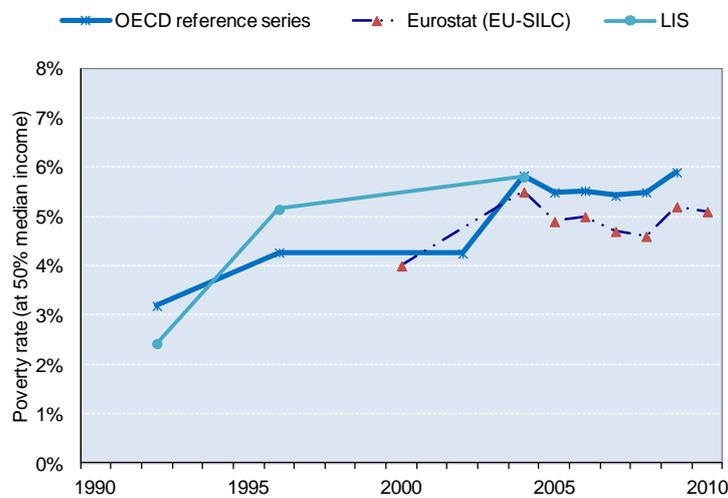


2.1.2 Time series of poverty rates

According to the OECD income distribution database, the share of the Czech population living with less than 50% of the median equivalised income (115,000 Korunas per year) has increased only slightly from 5.8% in 2004 to 5.9% in 2009.

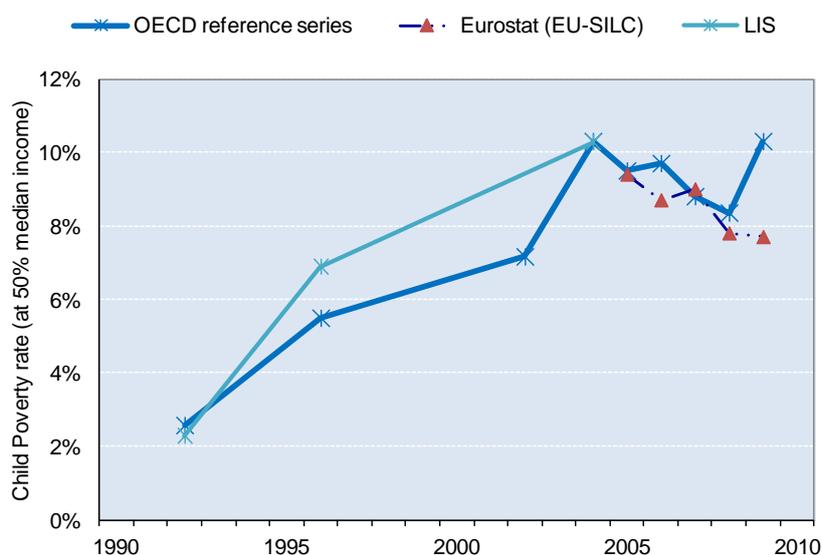
While the LIS series is consistent with the OECD reference series, as both show a 5.8% poverty ratio in 2004, the EU-SILC series shows lower levels than the OECD series overall, for instance in 2009 the EU-SILC series shows 5.2% poverty rate levels as opposed to 5.9% poverty rate levels for the OECD series.

Figure 2.1 Trends in poverty rates



As for child poverty, the OECD reference series and the LIS series both show a large increase since the beginning of the 1990s, reaching 10.3% in 2009 for the OECD reference series, but 7.7% for the EU-SILC series. The trends of the two series are also contrasting as the OECD series shows rising levels of child poverty rates as opposed to the EU-SILC series that shows slightly lower levels.

Figure 2.2 Trends in Child poverty rates



2.2 Wages

See Part II of the present Quality Review.

3. Consistency of income components shares with alternative data sources

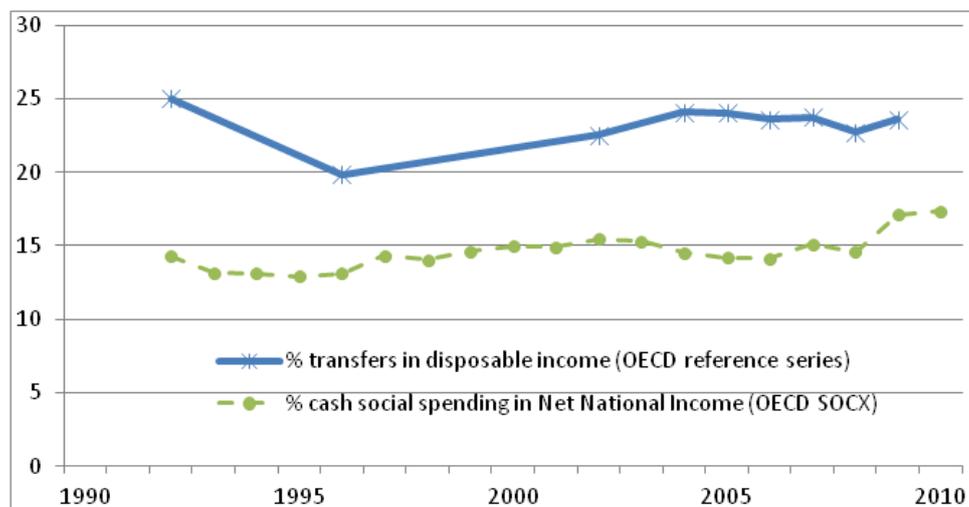
3.1. Comparison of main aggregates: earnings, self-employment income, capital income, transfers and direct taxes

Table 2 shows shares of income components for the latest available year, according to the OECD benchmark series. Unfortunately, such information is not available for the other data sources described in table 1.

Table 6. Shares of income components in total disposable income, OECD reference series

Survey	Year	Unit	Wages	Capital	Self Employment	Transfers	Taxes	Disposable income (HDI)
OECD reference survey	2008	natcur	173,820	5,533	42,068	52,382	-44,288	230,367
		% av HDI	75%	2%	18%	23%	-19%	

Figure 3 compares the trend in shares of public cash transfers in equivalised disposable income from the OECD reference series with the share of total cash social spending in net national income, reported from the OECD Social Expenditure database (OECD SOCX). OECD SOCX series include pensions, incapacity, family, unemployment, social assistance. Both series show similar trends throughout the period.

Figure 3. Trends in shares of public social transfers

4. Metadata of data sources which could explain differences and inconsistencies

Definitions, methodology, data treatment

The OECD reference series (as well as the LIS series) use the square root of household size, whereas the EU-SILC series use the OECD modified equivalence scale (1.0 to the first adult, 0.5 to the second and each subsequent person aged 14 and over, 0.3 to each child aged under 14).

Moreover, a comparative table on Living Conditions in Czech Republic in 2011 computed by Jiri Vecernik, researcher at the Academy of Sciences, shows the underestimation of higher earnings in EU-SILC surveys against wage surveys and, therefore, a possible underestimation of income inequality by EU-SILC data. (Source: personal files computed by Jiri Vecernik using wage surveys tables published by the CSO and EU-SILC).

5. Summary evaluation

Currently, there is no other national representative series on household data besides EU-SILC (called Living Conditions survey in the country). All public documents report on EU-SILC data as the only source regarding overall indicators of income inequality and poverty.

The levels and trends of the series are therefore pretty consistent, although the EU-SILC series from Eurostat is generally lower than the OECD series. This could be explained by the different equivalence scales.

It appears that the two different data sources which the OECD reference series are using (Microcensus and EU-SILC) can be compared in levels over time.